# NATURE'S LABORATORY **WORKING FOR VIRGINIA**

Vast Quantities of Fresh Water Marl Is Prepared to Make Its Farms Fertile.

Almost Inexhaustible Supply Found in Valley of Virginia, and Only Awaits Use for Agricultural Purposes-Permanent Benefit to Soil.

> BY DR. E. A. SCHUBERT, Mineralogist.

present time there is a great for material either of pure composition or mechanical that can be applied to the soil as permanently enrich the soil.

een an increasing interest in products that would permanently restore the oil and aid in plant growth of such a character that would add vegetable matter and nitrogen to our farm lands which are being rapidly depicted. Among these products may be men-tioned potash, soda, cynnimids, burnt lime, ground limestone, phosphate rock

larger deposits of this material than perhaps any other Commonwealth in trick said that it has reference to an acage, which through the ages other elements, thereby preserving in available form the calcium carbonate sand shell marks found in the constal nderstood that all of this area is This is what ranging from 20 to 40 per cent, and is usually overlaid with clay and loam to a depth of from five to fifty feet. loam to

broughout the coastal area of Virginia. a marl, since the origin is not

Montgomery (	County.
Silica	
fron and alum oxide.	
Calcium carbonate	94 35
Magnesium carbonate.	4 20
Calcium phosphate	
Rockbridge C	ounty
Silica	2.09
Iron and aluminum oxi	de 26
Calcium carbonate	Ang 70
Magnesium carbonate.	* *179
. Rockingham (	ounde
Silica	104
Iron and aluminum or	180
Calcium carbonate	
Magnesium carbonate.	
The use of fresh-wat	
tigal with that of the	er mari is iden -
tical with that of lime	stone or similar
composition. It is pec	unarly adapted

throughout the Valley, as follows:

to the manufacture of high-grade chemicals requiring a very friable and readily soluble limestone. It can be used for industrial purposes wherever limestone or the products of limestor are applicable—such as furnace flux, in steel plants, glass works, in the manu-facture of cement, lime and water softening plants and every other use to which the calcium products are applied in the industrials.

to which the calcium products are applied in the industrials.

However, in my opinion, the principal use for the fresh-water mari is for agricultural purposes. It is generally understood that limestone and it was with great difficulty that the calcium products is a new discovery.

This is neveral products is a new discovery.

In the crude form has been used in continental Europe for 500 years or more. The application of green sand and shell mari has been in voque in New Jersey and Eastern Virginia for 100 years or more. Ground linestone and burnt lime have been used by the farmers of Lancaster and other counties of Eastern Pennsylvania ever since of Eastern Pennsylvania ev THE USE OF COFFEE.

THE USE OF COFFEE.

Some Figures Showing Things as They Were Then and Now.

Interesting figures with regard to the production and consumption of arl, and one so readily available by e elements of the soil, is being prered in nature's laboratory in Viria, then there is no occasion why farmer should not use many though a former should not use many though a former should not use many though as of tons of this material every many opinion and consumption of the production and consumption of coffee are contained in a booklet just published by the National Coffee Roast-red in nature's laboratory in Viria, then there is no occasion why farmer should not use many though of tons of this material every many opinion.

Statements we delive is correct in the clty of Richmond, that we must ask that you publish that the Tobacco Trade, through its board of directors, cm-phatically states that the banks of Richmond, Va., in their belief, and as can ask they know as a whole, have fully taken care of their tobacco custometric many them.

An old-time market report is quoted as follows: "The imports as follows: "The import is quoted to the production of the production and consumption of confee are contained in a booklet just to the production and consumption of confee are contained in a booklet just to the production and consumption of confee are contained in a booklet just to the production and consumption of confee are contained in a booklet just to the production and consumption of confee are contained in a booklet just to the production and consumption of confee are contained in a booklet just to the production and the production and the production and consumption of confee are contained in

and burnt lime have been used by the farmers of Lancashr and other comileg of Eastern Pennsylvania ever since Revolutionary times, but for some residence in the city of the production of limestone and its several products was lost to the farm and the Wer Then and Nov.

THE USE OF COFFEE.

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THE USE of Coffee in the city of directors, and the twentdeth century, East of carrier in the twentdeth century, East of the production and up to the twentdeth century, East of the content of the content of the content of the production and consumption of content of the production and consumption of the production and

# GREAT FAIR AT MANASSAS, PRINCE WILLIAM COUNTY

One of the Last and Best in the Series for the Year of Agricultural Expositions.

ITS COST IS VERY SMALL RESULT OF HARMONIOUS WORK

Farmers' Clubs, Canning Clubs, Schools and Railroads Pulled Together-Will Make County Fair Permanent Institution.

Speaking about fairs, county fairs district fairs and State fairs, it may be well enough to tell in the Industrial Section something about one of the growth, as well Virginia; how it came about, how it was pulled off, and the good it seems

Prince William County never b IN DEPOSITS OF MARL article will be confined to the of mark, for the reason that in the of Virginia we find more and to such countles as have not yet gotten up a fair as to how to turn

HELD ON HISTORIC

uplift of the agricultural and so-conditions of Northern Virginia, and other land-improving elements and and the field agent of the department of the owner of the department of farm improvement work of the owner special reference of farm improvement work of the southern Kailway, together with the or Tidewater plain of Virginia, and director of Girls' Canning Club work, covering an area of perhaps \$,000 and the teachers throughout the counsquare miles. Now, it should not be ty, the first fair ever held in Prince ty, the first fair ever held in Princ William County was pulled off on th ance of 3.500 people.

The chief feature of the day

gigantie ing and voices entering, the principal streets of Manaszas, and the principal streets of Eastern Col on to the auditorium of Eastern

Virginia is a creation of the Eighth Congressional District Agricultural

This body was addressed by Dr. Cyril G. Hopkins, director of the Illinois Ex-periment Station, his subject being, "Soil Fertility in Relation to General Dr. Hopkins's address.

SCHOOL EXHIBIT THAT
WAS WORTH SEEING The gigantic school exhibit in Prince visitors at noon. The exhibits were of a high character, and embraced the departments of manual training, do-mestic science, domestic arts, nature

possibly, the largest corn exhibit in Northern Virginia, and the exhibitors,

high character. shown were of the highest character

The Good House Clubs of Women's Auxiliary to the Northern Virginia Farmers' Institute, also a creation of the Agricultural High School, held possibly the most complete and unique sibly the most complete and unique exhibit of domestic science and do-

exhibit of domestic science and do-mestic arts ever held anywhere in this

The prizes, offered by C. H. Yarborough Jr., director of the Agricul-tural High School, for the best all-round exhibit, and A. W. Sinelair, postmaster at Manassas, were won by the Manassas and Bethlehem clubs.

Four buildings were necessary to house the exhibits, and every one was completely satisfied with the fair in

entries of horses, cattle, sheep, swinc, goats, fully 100 entries in all, com-prised the exhibit. Great interest was centred in the

# SCENES OF A VIRGINIA COUNTY FAIR



## VIEWS AND NEAR VIEWS;

Manassas Fair.

HINTS AND SUGGESTIONS BY FRANK S. WOODSON.

Industrial Editor.

This column is open to contributors who have something to say of a suggestive nature, and who are willing to make hints and suggestions looking to the better development of the good old States of Virginia. West Virginia and North Carolina, and who can hold their suggestions down in any one issue to from 150 to 200 words. Such communications, addressed to the industrial Editor, will receive prompt attention.

R. G. Dun & Co.'s local special for the Industrial Section is as follows:

The expected opening of the Federal reserve bank, and the removal of obacco from the contraband class foreign governments, are two of the most encouraging factors in the local commercial situation. The cotton loan fund will be available for use with the commencement of business by producers of dark leaf for the export rade. The bulk of this variety has in

ing period, but no disposition is shown to force matters in connection with either sales or collections. Meanwhile, all reasonable economies are being will require time THERE IN GOOD SHAPE before it affects the demand at whole-

more dampness is needed. Farm work has also been delayed from the same

mestic arts ever held anywhere in this State.

There are five of these clubs in this county, composed of twelve members in putting up the most splendid exhibit.

The prizes, offered by C. H. Yarhas reached unusual proportions,

The officers and directors of the Rich-mond Tobacco Board of Trade have addressed a letter to the Western Toaddressed a letter to the Western house the exhibits, and every one was bacco Journal, a trade paper publishcompletely satisfied with the fair in
general.

The live stock department included entries of horses, cattle, sheep, swine. There having, for several consecu-

tive weeks, appeared in the Western Tobacco Journal from your correspon-

### COL. MURPHY TALKS OUT; THE FUTURE OF THE HORSE; HE WRITES TO THE POINT SHALL HE BE SUPPLANTED?

PrinceWilliamCountySchools on Parade

Thinking A Great Beat

About It.

America, on the pathway from coal mines to the sea, with three-quarters of the rural population of the United States living within twenty-six hours ride. Six great trunk-line railways thrust their steel hands into Richmond, while lesser systems radiate from the city in eleven directions. Three swift interurban electric lines connect Richmond with neighboring towns; three daily steamship lines ply from the city's wharves, while ships from all parts of the globe bring their cargoes to her feet.

"To an astonishing degree Richmond has been rebuilt in the last ten years. Skytopping office buildings, rising from the eminence of the hills tower above the river and the low-lying plains of Chesterfield; hotels of unequaled comfort and excellence are found now at every desirable location in the city, and the stacks from multitudinous factories on the river bank crowd together like the trees of the forest. Duilding openations in Richmond for the last five years have averaged \$5,000,000 and more cheaply and more easily and more quickly by mechanical powers the move multitudinous factories on the river bank crowd together like the trees of the forest. Duilding openations in Richmond for the last five years have averaged \$5,000,000 and more cheaply and more easily and more quickly by mechanical powers the move and reaper first came into suffer from lack of work, and that the

one attoms the time of the street of the crew to be the control of the control of

## CHARLOTTE CAR SERVICE.

The Independence Declaration City Be-lieves in Patronizing Home Factories,

CHARLOTTE, N. C., November 14.

CHARLOTTE, N. C., November 14.

The electric railway line has received and is putting in service six new double-truck cars. It is a matter of congratulation and pride that the company did not have to go beyond the State limits to get these splendly cars. They were built at High Point by a company that is trying to do some business in this line at that point.

# TAKING A GENERAL VIEW

Domestic Lines-Folks Don't Catch On.

Experiences of Demonstrator—Folks Slow to Catch On to His Authenticated Ideas-Many Things to Be Learned.

Taking a general view of things and ignoring the views of pessimists. and, as for that matter, the optimists him on the fly, and asked also, it may be well enough to remark that the week that has just come to a close brought business throughout the United States, affording a
great stimulus by reason of the reemployment of many thousands of
persons in the mills, shops and factories who had been idle for months
fact that, while there was a small in-

coal, iron and steel districts of has been a wonderful revival of busi-ness, and it may be said a defiance of of net operating revenues of war talk over the waters and here at cent. It was not until the home. Virginia folk have shown up of revenues was clearly apparent after well in local exhibits.

So much for local conditions. Going ment was begun with the purpose of back to the general proposition, it holding expenses within actual revenorders from foreign countries brought a disagreeable task, but we believ but the exports of our agricultural districts have brought to the farmhants to the manufacturers.

A State agent tells the man of news

of The Times-Dispatch some interest-

"We have now once more the in-creasing domestic demand in full action, and we have in many lines a most extraordinary foreign demand most extraordinary foreign demand for manufactured articles, as well as in all classes of foodstuffs, blankets, underwear, heavy clothing, shoes, gloves, canvas, ammunition, aruns, projectiles, auto trucks, automobiles, barbed wire—all these in immense quantities are being steadily called for from abroad, and these represent American material and American labor to the extent of scores of millions of dollars in value.

ingmen, and in many of the mills, the thops and factories the orders are so day in order to supply the needed ar-

FROM THE FOREIGN LABORER "From now on both foreign and do-

States is rapidly coming to a close in temporary, because the every section, save probably the are external and not i

### BENEFITS OF GRADING AS APPLIED TO FRUITS

Are Machines, and There Is Also Some Very Handy Handwork.

More careful grading and packing of apples demand that only apples of one size be put in a package. Some packers become so expert that they can grade an apple with their eye; but a lot of growers are going to use apple grading machines this year to size the fruit. A number of machines are now on the market. They have been developed by practical men, so that it is reasonable to suppose that some of them will be in every way satisfactory. The requirements are, first, that the greaded without any bruising; second, that the apples be graded accurately, and, third, that the speed be great enough to permit a large quantity of fruit to be handled in a limited time.

One of the simplest machines for grading and sorting fruit is made in the shape of a hopper with a chuice.

In thirty acres of land in Cotton Addition, El Pace, Texas, adjoining fifteen acres already owned, and will build stock already owned, and will build stock yards, including dehorning chutes, diply yards,

# CAUSES ARE EXTERNAL: ALL OVER OLD VIRGINIA INTERNAL CONDITION GOOD

Something Doing in Farming and President Harrison, of the Southern, Is Optimistic Believes in the South.

REAL FARM DEMONSTRATORS POLICY TO BE COPIED AFTER

Short Talk With a Man Who Knows His Business—Smaller Enterprises and Business Concerns Can Take

passed through the city one night last week. A Times-Dispatch man caught New York and New Jersey, of East- gressive decrease in ern Pennsylvania, and also of the great since the European

TOOK THINGS AS THEY

SAW THEM AT GLANCE "The management of Southern Railway Company has not deluded itself with the belief that this curtailment of expense is in every case an economy accomplished largely at the expense of the convenience of the people of the South, and at serious loss to many officers and employes. Eyery effort is being made to avoid curtailment of ing the convenience of the public a tion of Southern Railway

have ever done. EVERYBODY TRYING TO

HELP IN AN EMERGENCY
"I am glad also to certify that, in accordance with the spirit of President Wilson's recent letter to the railways, most of the public authorities, most of the commercial organizations and many private citizens throughout the South have shown a just appreciation of the present problem of the railways, and individuals who use our lines.

"As evidenced by its continuance of ever before to sustain a period of lieved. As soon as the various efforts now making for co-operative relief of sound business enterprises can go on the cotton situation show results, we with confidence that they will not be believe that improvement of general

## SOME DOINGS IN DIXIE IN THE INDUSTRIAL WAY

Money Situation, New Industrice Bob Us. BALTIMORE, November 14 .- Among

"The era of prosperity, delayed three velopmental enterprises reported in "The era of prosperity, delayed three or four months by the outbreak of this week's issue of the Manufacturin for the benefit of the people of the United States."

Louisville, Ky., will incorporate with capital stock of \$100,000; acquired plant and will install machinery to manufacturing the control of the capital stock of \$100,000; acquired plant and will install machinery to manufacturing will install machinery to manufacturing the capital stock of \$100,000; acquired plant and will install machinery to manufacturing the capital stock of \$100,000; acquired plant and will install machinery to manufacturing the capital stock of \$100,000; acquired plant and will install machinery to manufacturing the capital stock of \$100,000; acquired plant and will install machinery to manufacturing the capital stock of \$100,000; acquired plant and stock of \$100,000; acqui

and will install machinery to manu-facture coarse cotton yarns to a capacity of 75,000 pounds per week; will use about 8,000 bales of cotton annually. Morris & Co., Chicago, Ill., purchased

thirty acres of land in Cotton Addition,

Discard all bruised, stung or misshapen apples and grade as No. 1 those of good color and as No. 2 those inferior in coloring. Sort according to size so that every package is uniform throughout in size of fruit which it contains. Uniformity in color and size of fruit and size of package, combined with neatness and clean liness of package, will add greatly to the market price of the fruit.

Dividend Decisred.

NEW YORK, November 14.—The American Tobacco, contrary to expectation, has declared its regular quarticity dividend of 5 per cent on the commington, N. C., states that construction of the proposed breakwater at Cape Lookout, twelve miles east of this city.

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See Total Total Control of the proposed breakwater at Cape Lookout, twelve miles east of this city.

BEAUFORT, N. C., November 14.—The Beaufington of the proposed breakwater at Cape Lookout, twelve miles east of the control of the proposed of the proposed breakwater at Cape Lookout, twelve miles east of the control of the proposed of the proposed